

FIRE APPARATUS MECHANIC

DEFINITION

To lead and participate in a variety of routine to difficult technical and mechanical diagnostic and repair work on a wide variety of specialized fire apparatus and related equipment; and provide technical and/or functional guidance when staff is assigned to assist.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from an assigned supervisor.

Exercises technical and functional guidance over assigned staff.

ESSENTIAL FUNCTIONS – Functions may include, but are not limited to, the following:

To lead and participate in the maintenance and repair of a wide variety of fire apparatus, including pumps, aerial ladders, emergency equipment, and related component systems; troubleshoots and diagnoses operating problems.

Prepare and maintain a preventive maintenance schedule for fire apparatus equipment and vehicles.

Overhaul, repair and maintain fire vehicles, equipment engines, gearboxes, pumps, valves, and their components; fuel, electrical, hydraulic and power transmission systems; troubleshoot and diagnose operating problems.

Overhaul, repair, and adjust engines, transmissions, differentials, generators and pumps; fits and adjusts bearings; installs axles.

Make minor repairs to radiators, fenders, and body areas.

Install and recondition electrical systems; tests and repairs and adjusts brakes.

Operate fire vehicles and equipment in connection with repair and servicing.

Use and maintain a complete set of hand, power and shop tools and test equipment related to the work.

Fabricate replacement parts as necessary; operate a variety of fire and equipment in performing and testing assigned work;

Estimate parts and materials required for the work; requisitions or orders replacement parts as necessary.

Recommend contract work as required.

Observe safe work methods and utilizes safety equipment related to the work.

Provide technical assistance to other employees on difficult and complex problems.

Input parts and labor information for specific vehicles and/or repair orders into computer.

Prepare and maintain a variety of logs, records and reports of work performed using a computer; complete forms as necessary; makes oral reports as necessary.

Assist in the development of specifications for new equipment; recommends modification and repairs to existing equipment;

Read and interpret schematics, shop manuals, blueprints and plans in performing work assignments.

Stay abreast of current technology in the mechanical field.

Respond to emergency situations in off-hours as required.

Operate City fire vehicles with attachments skillfully and safely.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer services.

Performed related duties as assigned.

### MINIMUM QUALIFICATIONS

#### Knowledge of:

Practices, techniques, materials, tools and equipment used in diagnosis, repair and modification of a wide variety of specialized fire apparatus and related mechanical equipment including their component systems and computer systems.

Preventive maintenance practices and techniques.

Basic mathematical computations.

Rigging principles and practices used in handling heavy objects.

Parts inventory methods and procedures for stocking a garage with automotive, truck, and mechanical parts.

Practices of assigning and reviewing the work of others.

Pertinent regulations, standards and guidelines related to area of assignment.

Safe work methods and safety regulations pertaining to the work, including the use of personal protective equipment.

Principles and practices of conflict resolution.

Computer equipment and software applications related to assignment.

English usage, spelling, grammar, and punctuation.

Ability to:

Perform skilled mechanical repair work.

Use automotive test equipment.

Read and interpret plans, maps, and specifications and manuals.

Train and instruct others in proper work methods and techniques.

Use and operate tools and equipment related to assignment, including personal protective equipment.

Keep work related records and prepare reports using a computer.

Operate City vehicles observing legal and defensive driving practices.

Follow oral instruction; read, interpret, follow and explain written instructions, construction sketches and equipment manuals.

Use initiative and sound independent judgment within established guidelines.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Experience and Training

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Two years of responsible journey level experience in mechanical and equipment maintenance and repair including fire apparatus equipment and heavy diesel and gasoline powered vehicles.

Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in fire apparatus equipment and mechanical repair or a related field.

License or Certificate

Possession of a valid California Class B driver's license.

Successful completion of Gasoline Engine (T-1), Brakes (T-4), Electrical Systems (T-6), and Preventative Maintenance Inspections (T-8) tests from the National Institute for Automotive Service Excellence (ASE).

Fire Mechanic Level I Certification is required within the first year of employment.

PHYSICAL DEMANDS

On a continuous basis, frequent walk, stand, sit, downward flexion of and side-to-side turning of neck; lift tools weighing up to 25 lbs. and transport for distances up to 300 feet. Occasionally bend, stoop, squat, reaching above and at shoulder height, kneel, balance above ground, push/pull, twist at waist, lift objects up to 75 lbs above shoulder level, transport objects weighing over 75 lbs. with assistance, and operate computer keyboard and handheld power tools.

WORKING ENVIRONMENT

Work is performed indoors and occasionally outdoors; in shop environment with fluorescent lighting and moderate noise level; when outdoors, is with exposure to a variety of weather conditions; tasks may require working in tightly enclosed spaces. Some exposure to hazardous materials and substances may occur in the course of work

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